

QUALITY ASSURANCE / QUALITY CONTROL**SM 5020-2010** (As published in SM 22nd Edition)

Facility Name: _____ VELAP ID: _____

Assessor Name: _____ Analyst Name: _____ Inspection Date: _____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
(1) If acceptance criteria for a laboratory fortified blank used for the Initial Demonstration of Capability were not specified in the test method, were initial recovery limits calculated as follows: Initial Recovery Limits = Mean \pm (5.84 x Standard Deviation) NOTE: Determination of acceptance criteria using this formula is not applicable when LFB is not used. (See 5020:I).	5020B.1.a				
(2) Is the MRL (LOQ) verified initially <u>and at least quarterly</u> by analyzing a QC sample (subjected to all preparation steps) spiked at a level 1 to 2 times the MRL? (<i>Acceptance criteria must be documented.</i>) (NOTE: Table 5020:I does not require LFB for BOD and UV-254.)	5020B.1.c				
(3) For calibration verification, unless otherwise specified in the method, are check standards within \pm 10% of the true value and calibration blanks not greater than $\frac{1}{2}$ the LOQ?	5020B.2.b				
(4) If calibration verification fails, does the laboratory: <input type="checkbox"/> immediately cease analyzing samples and initiate corrective action? <input type="checkbox"/> then re-analyze the calibration standard and blank? <input type="checkbox"/> if re-analysis passes, continue analyses? <input type="checkbox"/> if re-analysis fails, repeat initial calibration and re-analyze samples run since the last acceptable calibration verification?	5020B.2.b				
(5) INITIAL CALIBRATION VERIFICATION: Did initial calibration verification with second source agree within \pm 15%?	5020B.2.b				
(6) CONTINUING CALIBRATION VERIFICATION: Were calibrations verified during a run by periodically analyzing a same source standard with results agreeing within \pm 10%?	5020B.2.b				

Notes/ Comments:

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(7) For method blanks, are results less than or equal to ½ the LOQ unless otherwise specified by the method?	5020B.2.d				
(8) For each of the following methods, is an LFB, matrix spike, <u>and</u> matrix duplicate (or matrix spike duplicates, MSD) analyzed at a frequency of at least one per day or per each batch of 20 samples? <input type="checkbox"/> Chemical oxygen demand <input type="checkbox"/> Total organic carbon <input type="checkbox"/> Oil and grease <input type="checkbox"/> Phenols <input type="checkbox"/> Surfactants <input type="checkbox"/> UV254	5020B.2.e, Table 5020:I 5020B.2.f 5020B.2.g				
(9) If specific limits are not established by the referenced method, are control limits calculated for LFB recovery, matrix spike recovery, and matrix duplicates (or MSD) relative percent difference?	5020B.2.e 5020B.2.f 5020B.2.g				
(10) Are samples randomly chosen for matrix duplicates and matrix spikes?	5020B.2.f, 5020B.2.g				
(11) Are matrix spikes prepared without increasing sample volume by more than 5%?	5020B.2.g				
(12) Does the laboratory rotate the range of spike concentrations to verify performance at various levels?	5020B.2.g				

Refer to table 5020:I for Minimum QC Requirements for methods in Part 5000

Notes/ Comments: